

· · · ·

[ ]

: 15

: 1998 1 2003 3

가 19 15 . 15

가 14 1 , 가 8 , 2 , 가 4

, 1 , 6 , 3 , 2

, 1 , 1 , 1 , 1 .

CHILD A: 7 , B: 8 , C: 0 ,

, 가, ,

: 15 6 (40%) , Child A

2 (28%), Child B 4 (50%) , 15 2 (13%)

Child A: 1 (14%), Child B: 1 (12.5%) . 28

14 가 .

:

가

multi - center study가 .

: , ,

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가 5가

가 (Table 2). Child-Pugh A, B, 가

가 C A 가 7, B

가 8, C 0 .

가 10 ,

가 3 , 가 1 ,

1 .

가 7,12).

가 ,

가 ,

가 .

가 .

가 .

Child-Pugh A 7

2 (28%) , Child-Pugh B 8

4 (50%) .

가가 (Table 3), 6

가

1998 4 2002 12

가 (Table 4). Child-Pugh A B 1

가 Child-Pugh B 1

가 15 14

(Table 1). 15 14

1 53.4

( : 39 ~75 ) , 3.5

Child-Pugh B 31.8

가 4 , 14 가 .

1 . 6 가

가 9, B

가 4, C 가

가 3, B 가 2, C

Child-Pugh 9) 가 1

**Table 1.** Demography of 15 patients of liver cirrhosis who received operation due to fracture of bone

	G/A	Child-Pugh Class	HD*	Diagnosis	Operation name	Bilirubin	albumin	Ascites	Neurology	PT**	AST/ALT
1	M/48	LC (A)	19 day	Distal radius Fx. Lt.	Open reduction and Internal Fixation	2.02/0.82	3.53	(-)	(-)	12.9 (1.14)	28/16
2	M/48	LC (A)	21 day	Femur neck Fx. Rt.	Closed reduction and pinning	1.01/0.41	3.46	(-)	(-)	13.6 (1.17)	34/24
3	M/38	LC (A)	15 day	Patellar Fx. Lt.	Open reduction and Internal Fixation	0.86/0.36	3.39	(-)	(-)	12.6 (1.08)	44/60
4	M/61	LC (A)	9 day	Calcaneal Fx. Both	Open reduction and Internal Fixation	1.34/0.52	3.5	(-)	(-)	12.5 (1.08)	58/42
5	M/57	LC (A)	15 day	Acetabular Fx. Rt.	Open reduction and Internal Fixation	1.65/0.5	3.6	(-)	(-)	11.4 (0.98)	41/29
6	M/61	LC (A)	17 day	Intertrochanteric Fx.	Open reduction and Internal Fixation with Dynamic hip screw	0.5/0.2	3	(-)	(-)	12.8 (1.1)	48/60
7	M/39	LC (A)	11 day	T-F Fx. Lt.	Intramedullary nailing	0.47/0.18	2.9	(-)	(-)	11.6 (1.0)	48/84
8	M/40	LC (B)	22 day	Distal radius Fx. Rt.	Open reduction and Internal fixation	1.00/0.32	3.4	(-)	(-)	11.0 (0.95)	28/14
9	F/42	LC (B)	18 day	Proximal tibia Fx. Rt.	Ilizarov	2.72/1.04	2.71	(-)	(-)	14.9 (1.34)	30/36
10	M/58	LC (B)	29 day	Femur neck Fx. Lt.	Bipolar Hemiathroplasty	1.34/0.49	2.4	(+)	(-)	12.9 (1.11)	22/26
11	M/60	LC (B)	23 day	Femur neck Fx. Rt.	Closed reduction and pinning with cannulated hip screw	0.38/0.22	2.96	(+)	(-)	14.9 (1.34)	33/15
12	M/57	LC (B)	60 day	Femur shaft Fx. Rt.	Exteranl Fixation	0.77/0.43	2.7	(-)	(-)	16.1 (1.38)	242/107
13	M/67	LC (B)	29 day	Femur neck Fx. Lt.	Open Reduction and Internal Fixation	2.2/0.8	2.2	(-)	(-)	13.3 (1.14)	38/14
14	M/75	LC (B)	25 day	Intertrochanteric Fx. Lt.	Open reduction and Internal Fixation with Dynamic hip screw	1.84/0.83	2.55	(-)	(-)	13.6 (1.22)	43/23
15	M/51	LC (B)	25 day	Femur shaft Fx. Rt.	Intramedullary nailing	0.60/0.30	2.47	(-)	(-)	16.9 (1.42)	42/31

\*HD: Hospital day, \*\*PT: Prothrombin time

Hemo Vac

400 cc 7+

7+ 1

1

58

(Fig. 1, 2).

1

Child-Pugh

Table 2. Child-Pugh classification<sup>9)</sup>

Factor	1	2	3
Serum albumin	>3.5	3.0~3.5	<3.5
Serum bilirubin	<2.0	2.0~3.0	>3.0
Ascites	None	Easily controlled	Poorly controlled
Neurologic disorder	None	Minimal	Advanced coma
Prothrombin time	0~4	4~6	>6
A (score 5~6), B (7~9), C (10 above)			

Table 3. Wound complications in liver cirrhotic patients

	Child-Pugh class A	Child-Pugh class B
Persistent Swelling	0	1
Aseptic discharge	1	2
Wound infection	1	1
Total	2	4

B

AST 242 IU/L, ALT 107  
IU/L, 2.7 g/dl, 16.1  
AST, ALT

(Fig. 3, 4).

3  
(MRSE)  
가 3  
,  
2  
61

Table 4. Laboratory data in postoperative wound complication patients

	Albumin *	Bilirubin *	Ascite	Neurology	PT**
Child-Pugh class A	3.39	0.86	N	N	12.9
	3.0	0.5	N	N	12.6
	2.72	2.71	N	N	14.9
Child-Pugh class B	2.61	1.34	Y	N	12.9
	2.82	0.77	N	N	16.1
	2.47	0.6	N	N	16.9

\*In serum, \*\*Rothrombin time

(Fig. 5, 6).

Child-Pugh A  
2.8 g/dl, 12.8  
(Fig. 7, 8).  
가  
(MRSA)  
가  
ESR, CRP



**Fig. 1.** Preoperative radiogram: 58 years old male



**Fig. 3.** Postoperative radiogram: 58 years old male



**Fig. 2.** Preoperative radiogram: 58 years old male



**Fig. 4.** Postoperative radiogram: 58 years old male

가,  
가  
Anderson<sup>1)</sup>  
가 Vit. K  
VII, IX, X, protein C, S 가  
INR  
K.  
V, XII  
PTT (Partial thromboplastin time)  
가  
Mohammed<sup>8)</sup> Child-Pugh



Fig. 5. Preoperative radiogram: 61 years old male



Fig. 7. Postoperative radiogram: 61 years old male



Fig. 6. Preoperative radiogram: 61 years old male



Fig. 8. Postoperative radiogram: 61 years old male

Child-Pugh A  
10%, Child-Pugh B 30%, Child-Pugh C 80%  
가  
가  
K ,  
Johnson<sup>6)</sup>  
가  
가  
C3  
.  
,

10%<sup>4)</sup>  
Riley<sup>10)</sup>  
Child-Pugh , , creatinine  
가,  
가  
Child-Pugh  
A 28%, Child-Pugh B 50%  
Child-Pugh A Child-  
Pugh B 가  
Child-Pugh A

14%, Child-Pugh B 12.5% .

가

가

가

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**Abstract****A Clinical Study about Postoperative Wound Complications  
In Liver Cirrhotic Patients**

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Young Jin Roh, M.D., Chang Woo Seok, M.D.**

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**Purpose:** This study undertaken to evaluate the postoperative wound complications between Child class A liver cirrosis patients and Child class B liver cirrhosis patients.

**Materials and Methods:** In a retrospective study from 1998 to 2003, fifteen patients who underwent surgical intervention for fractures were evaluated the period of wound healing, hopital day, infection, wound complications (swelling, hematoma formation, wound discharge).

**Results:** The cases of wound complication are 6/15 (40%), in which Child class A LC patients are two (14%), and Child class B LC patients are four (50%). The cases of wound Infection are 2/15 (13%), in which Child class A LC patient is one (14%), and Child class B LC patient is one (12.5%). The average of hospital day is 28 days.

**Conclusion:** The clinical results of postoperative complications is associated with Child classification, but the ralationship between postoperative wound infection and Child classification is not observed. We thought that careful wound management needs in liver cirrhosis patients.

**Key Words:** Liver cirrhosis, Fracture, Wound complication

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